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ABSTRACT

This study investigated the child rearing environments in 8 community based day care centers and 16 family day care homes and the social competencies of the toddlers enrolled in them. Subjects were forty 19-month-old toddlers from similar backgrounds, half in each type of day care. Socially directed behaviors between the toddler and peers, and between the toddler and adult were time sampled in the day care settings for 2 hours per child. The caregiver was interviewed regarding her training and other characteristics of her job. Results indicated that the two day care settings provided significantly different child rearing environments. The family day care homes cared for a smaller, more heterogeneous group; the caregivers were more isolated from other adults, did more housework while caring for the child, and worked longer hours. In contrast, day care centers were designed specifically for children and had more large, nonportable play objects; the caregivers had more formal training but less experience as mothers than family day care workers. Social competency of the toddlers was examined through an analysis of 5 factors: positive social skills; dependent behaviors; high positive affect directed to the caregiver and high frequencies of imitating the adult; negative affect directed to the caregiver; and violation of adult standards. There were no differences between the 2 types of day care in the adult facilitative and responsive caretaking and in toddler affect and dependence, indicating that (1) both environments have the potential for promoting social competency in toddlers and that (2) variation within day care settings may be more important than the type of day care. (Author/CM)

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Toddler Social Development in two Daycare Settings

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Recent U.S. Department of Labor statistics indicate that 32% of women with children under 3 are working outside the home (U.S. Department of Labor Statistics,1975). About 54% of the children of these women are cared for in their own homes by babysitters or relatives, about 15% are in daycare centers and about 31% are in family daycare homes (U.S. Department of Health Education and Welfare,1978). Family daycare is a formal or informal arrangement between parents and a neighborhood woman who cares for about 4 children in her own home. Despite the large proportion of children who are in family daycare, research on the effects of infant daycare has tended to focus on center rather than family care (Bronfenbrenner,1975,Schwartz,1975). In addition this research has usually been done on model daycare programs rather than community based daycare and has not described environmental variation between daycare settings. Recent work in ecological psychology (see for example Gump,1975) has pointed to the importance of the inanimate as well as the social context in explaining children's behavior. The purpose of the research project discussed in this paper was both to describe the childrearing environments in community based daycare centers and family daycare and to examine the social competencies of the toddlers within them.

The subjects of this research were 40 nineteen month

old toddlers, half in each type of daycare. The toddlers from each daycare setting were equivalent in age,sex, parental education and occupation, family composition, ethnic and racial background, and length of time in daycare.

The daycare settings were all licensed by the state and on the referral lists of social service agencies. They were from 15 communities in 2 urban\metropolitan areas. 122 family daycare homes were called,19 had children who met the criteria for subjects, and 16 of these agreed to participate. 15 daycare centers were called, 11 had children meeting the criteria, and 8 agreed to participate.

Socially directed behaviors between the toddler and adult and between the toddler and peers were time sampled in the daycare settings for two hours per child. This procedure resulted in 240 time sampling units per subject. Dimensions of the inanimate environment and characteristics of the peer group were recorded and the caregiver was interviewed regarding her training and other characteristics of her job. Interobserver reliability was calculated on 10 subjects prior to observation and checked twice during the study. For both social and environmental codes, reliability ranged from .86 to 1.0 with a median of .97.

Results

The two daycare settings were compared for differences in dimensions of the environment and for differences in social behavior. We will begin with a discussion of the environmental differences.

Table 1 presents environmental measures in the two settings. The first dimension which distinguishes family daycare from daycare centers is that of isolation from other adults who are caring for children. In the daycare centers at least 2 and an average of 3 adults shared the child care responsibilities. In family daycare homes there was only one person responsible for child care and she was usually physically alone in the home.

The two daycare environments also differed in the characteristics of the peer group. The groups of children cared for in daycare centers were larger than the groups cared for in family daycare homes. In family daycare the groups ranged in size from 2 to 6 children while in daycare centers the range was from 4 to 34. Despite these differences in size of group, the adult to child ratio, or the number of children per each adult was not different. The family daycare homes included more older but not more younger children than the daycare centers. The mean age of the group was not significantly different.

The physical setting in daycare centers was more often specifically designed for children. That is the space more often contained objects and toys specifically for children and breakable or dangerous adult items had been removed. The toddlers in daycare centers had more nonportable objects available for use in their play. A nonportable play object is large enough to hold two toddlers and too big to be carried. The toddlers in family daycare had more small portable toys available per child.

The two settings also differed in characteristics of the caregiver. The family daycare workers had more experience as mothers. All but one was a mother, whereas only 1/3 of the daycare center workers had children. However there were not differences in the number of years of experience as a child care worker. The women who worked in daycare centers had more special training than workers in family daycare. The median level of training in family daycare was attendance at some workshops, while the median level in daycare centers was a college degree in child development.

Finally, family daycare workers did more housework, ie. cooking and cleaning, while they cared for the children and they worked longer hours than did workers in daycare centers.

In summary, the two daycare settings, family daycare

homes and daycare centers, provided significantly different child rearing environments. The family daycare homes cared for a smaller more homogeneous group. The daycare centers were designed specifically for children and had more large nonportable play objects. The workers in family daycare homes were more isolated, more often mothers and had had less formal training than workers in daycare centers. They also do more housework while doing child care and work longer hours. The two settings were similar in adult child ratio, mean age of the peer group and in work experience of the caregiver.

The next task of this project was to describe and compare competent toddler interactions with caregivers. The problem of social competency was approached in two ways: through selection of the codeable socially directed behaviors and through a principal factors analysis. The socially directed behaviors were those variables which previous research indicated either promoted or measured toddler competency, e.g. vocalize to adult is a component of Clarke-Stewarts(1973) competence factor in her study of the consequences of interactions between mothers and young children. The use of a principal factors analysis permitted clustering these discrete socially directed behaviors into conceptual and statistically meaningful categories.

Table 2 presents the factors which resulted from a principal factors analysis with varimax rotation of social behaviorsdirected from toddlers to adults. The first independent factor was characterized by positive social skills, the ability to initiate and carry on a conversation, to share objects and activities with the caregiver, and to ask for things. The second independent factor was characterized by dependent behaviors. The toddlers high on this factor were the children who tended to stay close and cling to the caregiver. The third independent factor was of mixed content - high positive affect directed to the caregiver and high frequencies of imitating the adult. The fourth and fifth independent factors were negative in content. Factor four was characterized by expressing negative affect to the adult and factor five by violating adult standards.

Using factor scores, the two groups were compared on these factors. There was only one significant difference; toddlers in family daycare had higher scores on FactorI positive social skills. Table 3 presents comparisons between the two groups for variables with factor loadings of greater than .50 on this factor. Toddlers in family daycare had higher frequencies of spontaneous talk and responsive talk and a higher proportion of contingent talk. That is, they both more often initiated vocalizations and responded to adult

vocalizations.

Table 4 presents the factors which resulted from a principal factor analysis with varimax rotation of social behaviors directed from adults to toddlers. The first independent factor represents skillful caretaking. Adults with high scores on this factor made positive responses when the toddler they cared for made positive overatures or asked for something. They had high frequencies of facilitating or ~~comenting~~ commenting on toddlers' activities and of mutual play with the toddlers. They also had high frequencies of directing positive affect to the toddlers. The second factor represented the other extreme of caretaking; restrictive and negative behavior.Adults with high scores on this factor had high frequencies of restricting and reprimanding the toddler. They also had high frequencies of ignoring and responding negatively to the toddlers' social initiations. The third independent factor was characterized by negative responsiveness to toddler demands. The adults who scored high on this factor had high frequencies of negative responses to the toddler crying,violating standards or asking for something. In contrast, the fourth independent factor represented positive responsiveness to sharing and to toddler vocalization.

Using factor scores, the two groups were compared on these factors. There was only one significant difference;

adults in family daycare had higher scores on Factor II: restrictive and negative behavior. Table 5 presents comparisons between the two groups for variables with factor loadings of greater than .50 on this factor. Family daycare toddlers received more reprimands, more negative responses to positive bids, and more ignoring of positive bids.

We also examined peer interaction in the two settings. This material is presented elsewhere (Howes & Rubenstein, 1978) but briefly there were few differences in either socially directed behaviors or in interactive play between the two types of daycare.

Discussion

In this study both the environments which provided the context for childrearing and the social behaviors within these environments varied by type of daycare. Toddlers in family daycare were cared for by adults who had little special training, worked long hours, had responsibility for housework as well as child care, and were isolated from other adults. Their peer groups were smaller and more heterogeneous in age. The inanimate environment provided for family daycare toddlers was not designed specifically for children and the play objects within each setting were different. The implications of these findings is that it is erroneous to conceive of daycare as a unitary concept. The child rearing environments provided for

toddlers in family and center daycare were quite dissimilar. Furthermore there was considerable variation within daycare settings. Family daycare settings included both dark and dismal basement apartments and well equiped spatious settings (See Howes,1978, for more details). Daycare centers also varied especially in the size of the peer group and the overall size of the center.

The second purpose of this study was to describe and compare these daycare settings in terms of how well they promoted social competency in toddlers. The definition of social competency used in this research dervives from the theoretical work of White (1959). The socially competent toddler is one who has the capacity to participate in reciprocal interaction with adults and peers. From sucessful experiences of acting on the social environment and producing a response the toddler gains a sense of effectance. The competent toddler through his or her activity, is able to control the effect that the environment will have on him or her (Lewis,M. & Goldberg,S,1969).

Social competence has been found to be facilitated by responsive caretaking (Ainsworth & Bell,1974; Clarke-Stewart,1973; Elardo,et.al.,1977). There were no differences between the two types of daycare in adult facilitative and and responsive caretaking and the percentage of time spent

in positive social interaction is comparable to that reported by others in normative, observational studies of maternal-toddler interaction (Clarke-Stewart,1973; Rubenstein & Howes, 1977). This implies that both daycare settings are environments which have the potential for promoting social competency in toddlers.

Family daycare workers were higher than center daycare workers in expressing negative ~~behavior~~ affect to the toddlers. Normative studies have found competence to be inhibited by such behaviors (Beckwith,et.al.,1972; Clarke-Stewart,1973). This suggests that the restrictive and negative behavior of the family daycare worker may be detrimental. However the percentage of the observational period spent in such behavior must be considered. Family daycare toddlers were reprimanded in 3% of the observation period and daycare center toddlers in 1%. When either of these figures are compared to the 8% of the observation period found in a normative study of mothers (Rubenstein & Howes,1977), neither group of daycare adults appears very negative. A similar analysis can be performed for restrictive behavior. It occured in 9% of the observation period in family and 6% in center daycare. Maternal restrictiveness at home has been found to occur in 17 to 19% of the observation period (Clarke-Stewart,1973,Rubenstein & Howes,1977). Placed in this context adult ~~restrictiveness~~ negative behavior, in family daycare appears

to be well within the range of maternal behavior.

Toddler as well as caretaking behavior can be compared to the normative studies. There were no differences in dependent behavior or in expression of negative and positive affect between the two settings and the percentage of the observational period spent in such activity is comparable to that reported in studies of home-reared toddlers (Rubenstein & Howes,1977). However toddlers in daycare centers had lower frequencies of verbal behavior to adults than did toddlers in family daycare. Furthermore when the percentage of the observational period spent in talking to adults is compared to home-reared toddlers talking to their mothers both daycare samples appear low. The daycare center toddlers talked to the adult in 12% of the observation period, the family daycare toddlers in 20% and the home-reared toddlers in 30% (Rubenstein & Howes,1977). It appears that more toddler talking occurs in a one to one situation with the adult.

While the two types of daycare environments were quite dissimilar, the social behaviors within them were more similar. Family and center daycare were alike in facilitative and responsive caretaking and in toddler affect and dependence. The chief differences between settings were in caretaker negative behavior and toddler verbal production.

The major implication of this research is that individual

variation within daycare settings may be more important than the type of daycare. We found that daycare settings can facilitate the growth of social competence in toddlers. The next task is to examine relationships between environmental variables and social competency within each type of daycare.

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Table 1

Comparison of Family and Center Daycare Environments

Dimension	Family mean	Family SD	Center mean	Center SD	p
Isolation					
number of adults	1.0	0.0	3.1	2.2	**
Peer Group					
number in group	3.7	1.2	10.4	8.1	***
children per adult	3.5	1.1	3.4	.9	
months of age of oldest child	36.1	12.1	27.2	4.9	**
months of age of youngest child	15.7	4.8	14.0	4.9	
mean age in months	24.9	6.5	21.3	5.7	
Physical Setting					
median rating of child designed space	3.0		5.0		*
number of portable toys per child	12.9	11.4	2.9	1.2	***
number of nonportable play objects	2.8	2.1	9.3	14.6	*
Caregiver Background					
years of experience as mother	10.0	8.6	4.2	7.5	*
years of experience as child care worker	3.9	3.1	3.6	2.3	
median rating of special training	2.0		5.0		***
Job Description					
units of housework	45.8	41.1	16.3	30.3	**
hours of paid child contact	9.4	3.0	7.2	1.4	**

* $p < .05$
** $p < .01$
*** $p < .001$

Table 2

Comparison of Toddler Social Behavior to Adults in Two Daycare Settings

Factor	Family mean	Family SD	Center mean	Center SD	p
I Positive Social Skills	.4	1.1	-.4	.8	**
II Dependency	-.3	.8	.3	1.1	
III Positive Affect and Imitate	.1	1.1	-.1	1.0	
IV Negative Affect	.1	1.2	-.1	.9	
V Violates Standards	.0	1.1	-.0	.9	

** $p < .01$

Table 3

Comparison of Toddler Social Skills in Two Daycare Settings

Behavior	Family mean	Family SD	Center Mean	Center SD	p
Initiate talk	29.1	18.7	14.6	14.0	**
Responsive talk	23.9	19.4	13.4	12.6	*
Proportion contingent talk	.29	.15	.16	.11	**
Ask for something	8.5	7.2	4.8	5.2	
Share	12.0	11.6	10.6	7.2	

* $p < .05$
** $p < .01$

Table 4

Comparison of Adult Caregiving in Two Daycare Settings

Factor		Family mean	Family SD	Center mean	Center SD	p
I	Skillful, facilitative	.1	1.3	-.2	.8	
II	Restrictive and Negative	.4	1.4	-.4	.5	*
III	Negative Responsive	-.0	1.2	.1	.6	
IV	Positive Responsive	.2	.9	-.3	1.3	

* $p < .05$

Table 5

Comparison of Adult Restrictive and Negative Behavior in Two Daycare Settings

Behavior	Family mean	Family SD	Center mean	Center SD	p
Restrict	20.8	14.3	15.2	8.9	
Reprimand	7.9	8.8	3.3	3.6	*
Negative response to positive bid	3.0	2.6	1.4	1.5	**
Ignore positive bid	3.9	2.9	1.5	1.3	***

* $p < .05$
** $p < .01$
*** $p < .001$